nfdi
Nationale
Forschungsdaten
Infrastruktur

Sections
Onboarding
Event

Section Common
Infrastructures

Online, 10.12.2025

Section Common Infrastructures
Overview

Founded in 2021
> 220 members
from > 110 institutions

10+1 working groups
8 basic service proposals

Spokespersons:
- Sonja Schimmler and Michael Diepenbroek

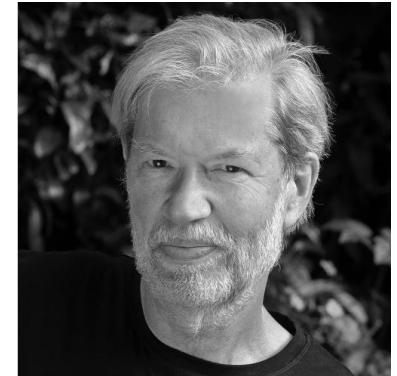Concept of the section (03/2025):
- https://doi.org/10.5281/zenodo.15000220

Concept of the working group overall architecture (04/2025):
- https://doi.org/10.5281/zenodo.15210893

More information regarding the sections:
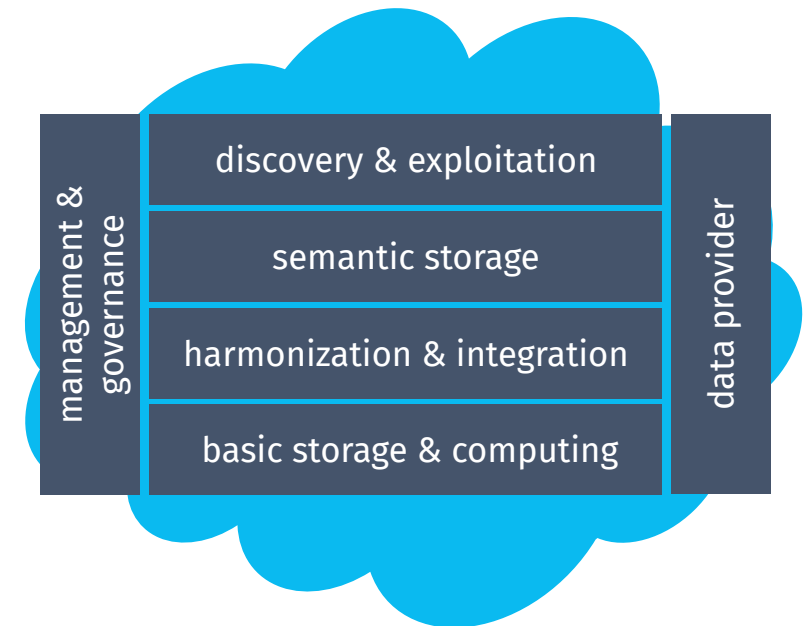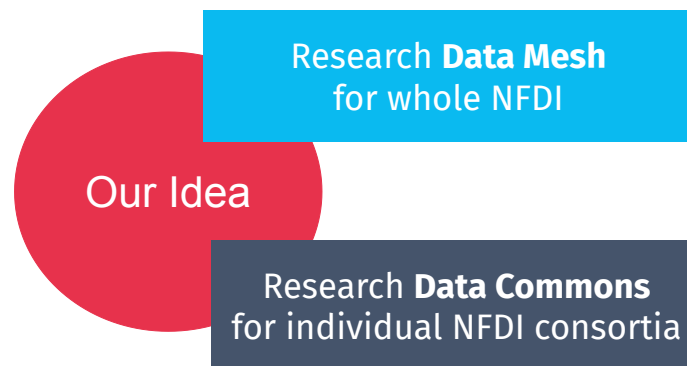- https://www.nfdi.de/sections/?lang=en

"Identify, design and build federated infrastructures and software components."

Section Common Infrastructures
Overview

- Coordinate **federated infrastructures** and **software development** across NFDI consortia.
- Align **architectural concepts** of NFDI consortia.
- Establish a **Research Data Commons (RDC)**.
- Be home of **10+1 active working groups** on cross-cutting topics.
- Act as central hub for **basic service creation**.
- Build **sustainable technology partnerships**.
- Support NFDI as a **national EOSC node** and engaging with **external initiatives**.

Our Idea

Research **Data Mesh**
for whole NFDI

Research **Data Commons**
for individual NFDI consortia

management & governance

discovery & exploitation

semantic storage

harmonization & integration

basic storage & computing

data provider

Section Common Infrastructures
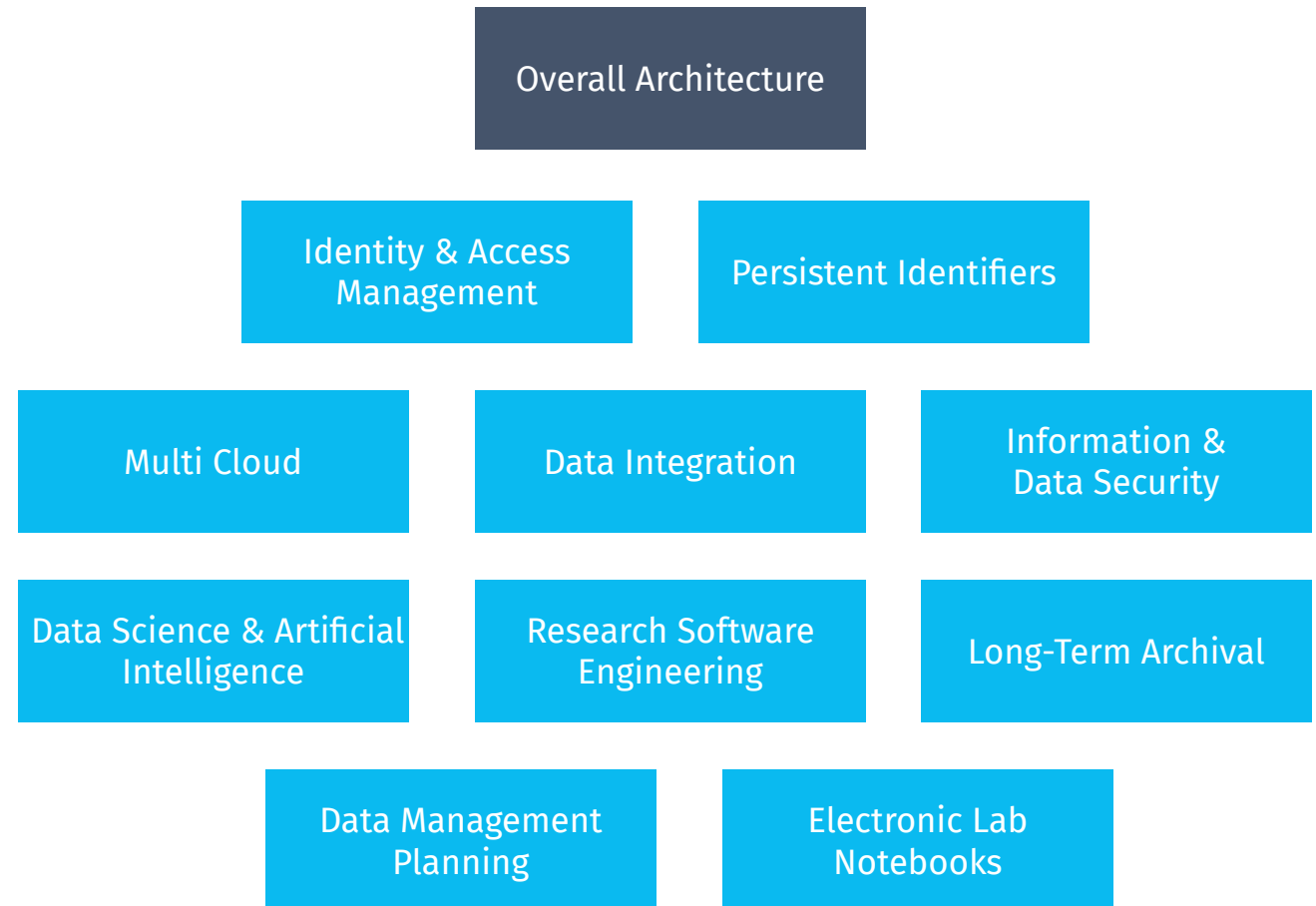## Overview

Structure

- 10+1 Working Groups

Role

- Support
- Concepts / papers
- Basic service(s)

Activities 2025 (highlights)

- Present results at CoRDI 2025
- Accompany DFG Storage Call
- Perform in-person workshop on Overall Architecture

Overall Architecture

Identity & Access Management

Persistent Identifiers

Multi Cloud

Data Integration

Information & Data Security

Data Science & Artificial Intelligence

Research Software Engineering

Long-Term Archival

Data Management Planning

Electronic Lab Notebooks

Section Common Infrastructures
Base4NFDI - Basic Services for NFDI

The section is responsible for **six core basic services**:

- nfdi.architecture (funded - special project)
- IAM4NFDI, PID4NFDI, DMP4NFDI, Jupyter4NFDI
  (funded - integration phase)
- nfdi.software, Accounting4NFDI
  (funded – initialization phase)
- Preparation: MC4NFDI

The **role of the section**:

- Section Working Groups
  - Prepare basic service proposals
  - Accompany basic services
- Section
  - Present basic service proposals (decision)
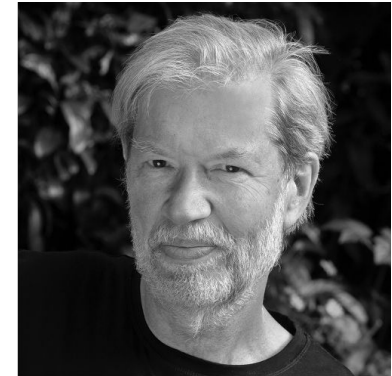 - Report on basic service progress after each (decision)

IAM4 nfdi
Identity and Access Management
for the German National Research
Data Infrastructure

PID4 nfdi
Persistent Identifier Services
for the German National Research
Data Infrastructure

DMP4 nfdi
Data Management Plans
for the German National Research
Data Infrastructure

Jupyter®4 nfdi
A central JupyterHub
for the German National Research
Data Infrastructure

nfdi.software
A research software marketplace
for the German National Research
Data Infrastructure

Accounting4 nfdi
Accounting
for the German National Research
Data Infrastructure

Section Common Infrastructures
Contact

Mailinglists:
- section-infra@lists.nfdi.de
- section-infra-wg-[xxx]@lists.nfdi.de

"Identify, design and build federated infrastructures and software components."

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Thank you everyone!

- Break-Out-Room 1: Section Industry Engagement

  - Presenting working groups: overview of all three working groups

- Break-Out-Room 2: Section ELSA

  - Presenting working groups: Ethics

- Break-Out-Room 3: Section Training & Education

  - Presenting working groups: Helpdesks, Materialsammlungen

- Break-Out-Room 4: Section (Meta)daten, Terminologien, Provenienz

  - Presenting working groups: Research Software Metadata, Knowledge Graphs

- Break-Out-Room 5: **Section Common Infrastructures**

  - Presenting working groups: RSE, DMP